

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of		)	
	Takayuki Mizuno et al.	)	
Serial No.:	10/536,649	)	Art Unit
		)	2883
Filing Date:	May 27,2005	)	
		)	
Confirmation No.:	2202	)	
		)	
For:	INTERFERENCE OPTICAL SWITCH AND	)	
	VARIABLE OPTICAL ATTENUATOR	)	
		)	
Examiner:	Michael P. Mooney	)	

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. § 1.97

Commissioner for Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Please find, pursuant to 37 C.F.R. § 1.98(a)(1), the enclosed Form PTO-1449 which contains a list of all patents, publications, or other items that have come to the attention of one or more of the individuals designated in 37 C.F.R. § 1.56(c). While no representation is made that these references may be "prior art" within the meaning of that term under 35 U.S.C. §§ 102 or 103, the enclosed listed references are disclosed so as to fully comply with the duty of disclosure set forth in 37 C.F.R. § 1.56.

Moreover, while no representation is made that a specific search of office files or patent office records has been conducted or that no better art exists, the undersigned attorney of record believes that the enclosed art is the closest to the claimed invention (taken in its entirety) of which the undersigned is presently aware, and no art which is closer to the claimed invention (taken in its entirety) has been knowingly withheld.

In accordance with 37 C.F.R. §§ 1.97 and 1.98, a copy of each of the listed references or relevant portion thereof that is not a US patent document is also enclosed.

Statement of Relevance of References Listed  
Unaccompanied by English Translation

Under 37 C.F.R. § 1.98(a)(3)

In accordance with 37 C.F.R. § 1.98(a)(3), the following concise explanation of the relevance of each listed reference that is not in the English language and unaccompanied by a translation into English is provided:

Japanese Patent No. 01-158413, Issued 6/21/1989: PURPOSE: To decrease the power consumption and to reduce mutual interference (crosstalk) by separating part of an optical waveguide substantially from a substrate and providing a heater for adjusting the length of an optical path finely on the separated optical waveguide. CONSTITUTION: Grooves 11a and 11b are formed in part of a clad layer 3 in the lengthwise direction of a core part and reach the silicon substrate. Part of the silicon substrate 1 is etched away so as to link the bottom parts of those grooves 11a and 11b, and thus a silicon substrate removal area 12 is formed to suppress heat conduction from the heated optical waveguide part 13 to the substrate 1. Namely, the thin film heater 4 as a heating body for adjusting the phase is loaded on the optical waveguide part 13 separated from the silicon substrate 1. The heating efficiency of the optical waveguide is improved. Consequently, the power consumption is made small and the mutual interference (crosstalk) is reduced.

Japanese Patent No. 64-077002, Issued 3/23/1989: PURPOSE: To execute an exact double refraction control of an optical waveguide by providing a stress providing film on an optical waveguide clad layer so that a stress exerted on an optical waveguide core part is varied non-reversibly by an external stimulus. CONSTITUTION: A clad layer 12 is formed on a substrate, and a single mode optical waveguide containing a core part which is buried in this clad layer 12 and has a light propagating action is formed. Subsequently, a stress providing film 31 for providing a stress to this single mode optical waveguide, and also, varying non-reversibly the stress by trimming is formed on the clad layer 12. It will suffice that this stress providing film 31 is brought to trimming so that a desired double refraction characteristic can be obtained. At the time of bringing the stress providing film 31 to trimming, a diagnostic light is made incident on an integrated optical device, and while monitoring a prescribed device characteristic such as a polarized wave characteristic of the device, etc., trimming can be executed. In such a way, a precise double refraction control, and also, a polarized wave characteristic control of the optical device can be executed.

Non-Prior Art References

The following reference is not prior art, but is included herein for the Examiner's consideration:

Official Notice of Rejection for Japanese Patent Application No. 2005-511424 dated November 29, 2007 which relates to the same invention as the present application.

Dated this 8<sup>th</sup> day of January 2008.

Respectfully submitted,

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